AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-58. (Cancelled)

59. (Currently Amended) An isolated Nod-factor binding polypeptide comprising: at least 80% amino acid sequence identity to any one of SEQ ID NO: 8, 15, 31, 32, 40, or 48, ~~48,~~ wherein said polypeptide comprises an extracellular domain comprising 2 or 3 different LysM-type motifs, and wherein said polypeptide selectively binds strain-specific forms of Nod-Factor.

60. (Currently Amended) An isolated Nod-factor binding polypeptide comprising: at least 80% amino acid sequence identity to any one of SEQ ID NO: 24 or 25, ~~24, 25, 52, or 54; and~~ wherein said polypeptide comprises an extracellular domain comprising 2 or 3 different LysM-type motifs, and wherein said polypeptide selectively binds strain-specific forms of Nod-Factor.

61. (Previously Presented) The isolated Nod-factor binding polypeptide of claim 59, wherein said polypeptide comprises the amino acid sequence of any one of SEQ ID NO: 8, 15, 31, 32, 40, or 48.

62. (Currently Amended) The isolated Nod-factor binding polypeptide of claim 60, wherein said polypeptide comprises the amino acid sequence of any one of SEQ ID NO: 24 or 25. ~~24, 25, 52, or 54.~~

63. (Currently Amended) An isolated Nod-factor binding element comprising

one or more isolated Nod-factor binding polypeptide of claim 59, and further comprising one or more isolated Nod-factor binding polypeptide comprising at least 80% amino acid sequence identity to any one of SEQ ID NO: 24, 25, 52, or 54, ~~; and~~ wherein said polypeptide comprises an extracellular domain comprising 2 or 3 different LysM-type motifs, and wherein said polypeptide selectively binds strain-specific forms of Nod-Factor.

64. (Previously Presented) An isolated Nod-factor binding element comprising one or more isolated Nod-factor binding polypeptide of claim 61, and further comprising one or more polypeptide comprising the amino acid sequence of any one of SEQ ID NO: 24, 25, 52, or 54.

65. (Currently Amended) An isolated nucleic acid molecule encoding the Nod-factor binding polypeptide ~~protein~~ of claim 59.

66. (Currently Amended) An isolated nucleic acid molecule encoding the Nod-factor binding polypeptide ~~protein~~ of claim 60.

67. (Previously Presented) The isolated nucleic acid molecule of claim 65, wherein said nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO: 6, 7, 11, 12, 30, 39, or 47.

68. (Currently Amended) The isolated nucleic acid molecule of claim 66, wherein said nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO: 21, 22, or 23. ~~21, 22, 23, 51, or 53~~.

69. (Currently Amended) A transgenic cell stably transformed with one or more nucleic acid molecule encoding the Nod-factor binding polypeptide ~~protein~~ of claim 59.

70. (Previously Presented) The transgenic cell of claim 69, wherein said nucleic acid molecule encodes a polypeptide having the sequence of SEQ ID NOS: 8, 15, 31, 32, 40, or 48.

71. (Previously Presented) The transgenic cell of claim 69, wherein said nucleic acid molecule comprises the sequence of SEQ ID NOS: 6, 7, 11, 12, 30, 39, or 47.

72. (Currently Amended) A transgenic cell stably transformed with one or more nucleic acid molecule encoding the Nod-factor binding polypeptide ~~protein~~ of claim 60.

73. (Currently Amended) The transgenic cell of claim 72, wherein said nucleic acid molecule encodes a polypeptide having the sequence of SEQ ID NOS: 24 or 25. ~~24, 25, 52, or 54.~~

74. (Currently Amended) The transgenic cell of claim 72, wherein said nucleic acid molecule comprises the sequence of SEQ ID NOS: 21, 22, or 23, ~~51, or 53~~.

75. (Previously Presented) A transgenic cell comprising one or more transgene encoding the Nod Factor binding element of claim 63.

76. (Previously Presented) A transgenic cell comprising one or more transgene encoding the Nod Factor binding element of claim 64.

77. (Cancelled)

78. (Cancelled)

79. (Cancelled)

80. (Cancelled)

81. (Cancelled)

82. (Cancelled)

83. (Cancelled)

84. (Cancelled)

85. (Currently Amended) A method of producing a transgenic plant expressing a Nod-factor binding polypeptide ~~protein~~, the method comprising:

a. introducing into the plant a nucleic acid molecule encoding one or more Nod-factor binding polypeptide of claim 59, wherein the nucleic acid sequence is operably linked to a promoter; and

b. selecting transgenic plants expressing the Nod-factor binding ~~protein~~ polypeptide.

86. (Previously Presented) The method of claim 85, wherein said nucleic acid molecule encodes a polypeptide having the amino acid sequence of SEQ ID NO: 8, 15, 31, 32, 40, or 48.

87. (Previously Presented) The method of claim 85, wherein said nucleic acid molecule comprises the sequence of SEQ ID NO: 6, 7, 11, 12, 30, 39, or 47.

88. (Currently Amended) A method of producing a transgenic plant expressing a Nod-factor binding polypeptide ~~protein~~, the method comprising:

a. introducing into the plant a nucleic acid molecule encoding one or more Nod-factor binding polypeptide of claim 60, wherein the nucleic acid sequence is operably linked to a promoter; and

b. selecting transgenic plants expressing the Nod-factor binding polypeptide ~~protein~~.

89. (Currently Amended) The method of claim 88, wherein said nucleic acid molecule encodes a polypeptide having the amino acid sequence of SEQ ID NO: 24 or 25. ~~24, 25, 52, or 54.~~

90. (Currently Amended) The method of claim 88, wherein said nucleic acid molecule comprises the sequence of SEQ ID NO: 21, 22, or 23~~, 51, or 53~~.

91. (Currently Amended) The method of claim 85, further comprising introducing into the plant one or more nucleic acid molecule encoding a polypeptide having at least 80% amino acid sequence identity to SEQ ID NO: 24, 25, 52, or 54. ~~the Nod-factor polypeptide of claim 60.~~

92. (Previously Presented) The method of claim 86, comprising:

introducing into the plant one or more nucleic acid molecule encoding a polypeptide having the amino acid sequence of SEQ ID NO: 8, 15, 31, 32, 40, or 48; and further introducing into the plant one or more nucleic acid molecule encoding a polypeptide having the amino acid sequence of SEQ ID NO: 24, 25, 52, or 54.

93. (Currently Amended) The method of claim ~~92~~91, comprising introducing into the plant one or more nucleic acid sequence comprising SEQ ID NO: 6, 7, 11, 12, 30, 39, or 47; and further introducing one or more nucleic acid sequence comprising SEQ ID NO: 21, 22, 23, 51, or 53.

94. (Previously Presented) The method of claim 85, wherein one or more nucleic acid sequence is introduced into the plant through a sexual cross.

95. (Previously Presented) The method of claim 88, wherein one or more nucleic acid sequence is introduced into the plant through a sexual cross.

96. (Previously Presented) The method of claim 91, wherein one or more nucleic acid sequence is introduced into the plant through a sexual cross.

97. (Previously Presented) The method of claim 93, wherein one or more nucleic acid sequence is introduced into the plant through a sexual cross.

98. (Previously Presented) A transgenic plant comprising one or more transgene encoding the Nod-factor binding polypeptide of claim 59.

99. (Previously Presented) The transgenic plant of claim 98, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 8, 15, 31, 32, 40, or 48.

100. (Previously Presented) A transgenic plant comprising one or more transgene encoding the Nod-factor binding polypeptide of claim 60.

101. (Currently Amended) The transgenic plant of claim 100, wherein the polypeptide comprises the amino acid sequence of SEQ ID NO: 24 or 25. ~~24, 25, 52, or 54.~~

102. (Previously Presented) A transgenic plant comprising one or more transgene encoding the Nod-factor binding element of claim 63.

103. (Previously Presented) A transgenic plant comprising one or more transgene encoding the Nod-factor binding element of claim 64.

104. (Previously Presented) The transgenic plant of claim 98, wherein said plant is a cereal.

105. (Cancelled)

106. (Previously Presented) The transgenic plant of claim 100, wherein said plant is a cereal.

107. (Cancelled)
108. (Cancelled)
109. (Cancelled)

110. (Currently Amended) The transgenic plant of claim 98, wherein said plant is a ~~cereal~~ legume.

111. (Cancelled)

112. (Previously Presented) The transgenic plant of claim 100, wherein said plant is a legume.

113. (Cancelled)
114. (Cancelled)
115. (Cancelled)

116. (Previously Presented) The transgenic plant of claim 98, wherein said plant is a non-nodulating plant.

117. (Cancelled)

118. (Previously Presented) The transgenic plant of claim 100, wherein said plant is a non-nodulating plant.

119. (Cancelled)
120. (Cancelled)
121. (Cancelled)

122. (New) An isolated Nod-factor binding polypeptide comprising:
at least 90% amino acid sequence identity to SEQ ID NO: 52 or 54, wherein said polypeptide comprises an extracellular domain comprising 2 or 3 different LysM-type motifs, and wherein said polypeptide selectively binds strain-specific forms of Nod-Factor.

123. (New) An isolated nucleic acid molecule encoding the Nod-factor binding polypeptide of claim 122.

124. (New) A transgenic cell stably transformed with one or more nucleic acid molecule encoding the Nod-factor binding polypeptide of claim 122.

125. (New) The transgenic cell of claim 124, wherein said nucleic acid molecule comprises the nucleotide sequence of SEQ ID NO: 51 or 53.

126. (New) A transgenic plant comprising one or more transgene encoding the Nod-factor binding polypeptide of claim 122.

127. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 8.

128. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 15.

129. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 31.

130. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 32.

131. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 40.

132. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 48.

133. (New) The transgenic plant of claim 100, wherein the transgene encodes a polypeptide comprising at least 80% amino acid sequence identity to SEQ ID NO: 24.

134. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 8.

135. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 15.

136. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 31.

137. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 32.

138. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 40.

139. (New) The transgenic plant of claim 98, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 48.

140. (New) The transgenic plant of claim 100, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 24.

141. (New) The transgenic plant of claim 126, wherein the transgene encodes a polypeptide comprising the sequence of SEQ ID NO: 52.